

Claims

1. Ventilation device (1) for artificially ventilating component groups (2) in a subrack comprising at least one fan unit (3)

5 connected to a power supply unit (5) by means of connecting wires (4), a control unit (7) for monitoring the ventilation of the fan unit (3), of which there is at least one, whereby the control unit (7) controls a control element (6) in the power circuit of the connecting wires (4),

10 characterized in that

each component group (2) is assigned a temperature monitoring device (8) which through-connects a switching device (9) connected in parallel to the control element (6), when a component group limit temperature is exceeded.

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2. Ventilation device according to Claim 1,

characterized in that

the switching device (9) has switching elements (10) arranged in each case on a component group (2).

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3. Ventilation device according to Claim 2,

characterized in that

temperature monitoring devices (8) assigned to the component groups (2) and switching elements (10) are combined in each case to form a 25 switching unit (11).

4. Ventilation device according to Claim 3,

characterized in that

the switching units (11) and the control unit (7) are locally 30 arranged in the subrack (12) separately from one another.

5. Ventilation device according to one of the preceding Claims, characterized in that

the component groups (2) in the subrack (12) are arranged in a 35 pluggable manner in a backplane (13), and parallel switching of the switching elements (10) with the control element (6) is produced via a backplane line (18) common to the switching elements (10).

6. Ventilation device according to at least one of the preceding Claims,

characterized in that

5 each switching element (10) is configured as a semiconductor switching element, particularly preferably as a power MOSFET.

7. Ventilation device according to at least one of the preceding Claims,

10 characterized in that

the fan unit (3), of which there is at least one, has a brushless motor with integrated tachogenerator (TG) as a drive.

8. Ventilation device according to at least one of the preceding

15 Claims,

characterized in that

each temperature monitoring device (8) comprises a sensor diode (19) for temperature recording, which is integrated in an integrated circuit of an electronic component of the respective component group 20 (2).

9. Ventilation device according to at least one of the preceding

Claims,

characterized in that

25 four fan units (3) are arranged in a subrack (12), and are monitored jointly by a control unit (7) configured as an integrated controller module.

10. Ventilation device according to one of the preceding Claims,

30 characterized in that

the control unit (7) is connected to a control computer (16) by means of a bus (17), whereby the bus is particularly preferably configured as a System Management Bus (SMB bus), Intelligent Platform Management Bus (IPMI bus) or I²C bus.

11. Subrack for printed circuit board component groups containing at least one ventilation device according to at least one of the Claims 1 to 10.